Appendix F8: SARS-CoV Testing at Washington State Public Health Laboratories: **Frequently Asked Questions**

What tests are being done for SARS Co-V, the coronavirus that causes SARS, and how can I request testing for patients suspected to have SARS?
The Washington State Public Health Laboratories (PHL) perform EIA (enzyme immunoassay) to detect SARS-CoV antibody in serum, and reverse-transcriptase polymerase chain reaction assay (RT-PCR) to detect SARS-CoV RNA in serum, tissue, respiratory secretions and stool. These tests are research techniques, require documentation of informed consent from the patient, and must be requested through your local health jurisdiction (in King County, call Public Health at 206-296-4774) or Communicable Disease Epidemiology, Washington State Department of Health.

Why do SARS tests require documentation of patient consent?
Currently the tests available to detect SARS-CoV are still investigational. The exact sensitivity and specificity of these tests is unknown, as is the optimal timing to obtain specimens from patients suspected to have SARS. As investigational assays, these tests have not yet been approved by the Food and Drug Administration (FDA) for diagnostic purposes, and require informed consent. More information and copies of consent forms can be found at: http://www.cdc.gov/ncidod/sars/lab/eia/index.htm

What does it mean if a patient has a positive test result for SARS-CoV?
Laboratory tests should always be interpreted with clinical and epidemiological data in determining a diagnosis. Detection of SARS Co-V by RT-PCR or serologic test must be confirmed at a second laboratory. If confirmed, detection of the virus by RT-PCR or detection of antibody by serologic testing suggests a recent infection with SARS-CoV.

How is a SARS-CoV test confirmed?
For tests processed at PHL, detection of antibody will be confirmed by retesting the specimens at the Centers for Disease Control and Prevention's (CDC) laboratory while detection of virus by RT-PCR will be confirmed by retesting the original specimen at PHL and testing at CDC.

What does it mean if all tests are negative in a patient with suspected SARS?
In an immunocompetent person who has not been treated with systemic steroids, the only conclusive test to rule out SARS-CoV is a negative antibody result on a serum specimen collected >28 days after onset of illness. The absence of antibody in a serum specimen collected $\leq$ 28 days after onset of illness, or a negative RT-PCR test on a specimen collected at any point in the illness, does not rule out SARS-CoV infection.

What does it mean if the test results are positive for other respiratory specimens?
A positive test result for another respiratory pathogen does not rule out SARS-CoV infection. SARS patients can be co-infected with SARS-CoV and other respiratory pathogens. In some circumstances, however, detection of another respiratory pathogen may assist with ruling out SARS-CoV infection (e.g., the other pathogen can fully explain the severity of the illness, or is detected in multiple patients in a cluster of cases).

Should isolation precautions continue for a patient suspected to have SARS with negative SARS-CoV tests?
With the exception of a negative serologic test result on a specimen obtained >28 days after onset, a negative SARS-CoV test alone should not affect patient isolation or management decisions. Careful assessment of the patient's clinical course and the potential risk of exposure to SARS must be weighed for making patient management and infection control decisions. For additional information on isolation and infection control for SARS from CDC, see http://www.cdc.gov/ncidod/sars/ic.htm